

**Amendments to the Drawings:**

The attached replacement drawing sheets makes changes to FIG. 8 and replaces the original sheets with FIG. 8.

**REMARKS**

Claims 7-21 are pending in this application, claims 7-16 having been withdrawn from consideration. By this Amendment, new claims 17-21 are added and original claims 1-6 are canceled without prejudice to or disclaimer of the subject matter therein. Support for new claims 17-21 can be found in the specification as originally filed, for example, at paragraphs [0013], [0015]-[0017] and [0019]. No new matter is added by these amendments.

**I. Telephone Restriction**

A telephone requirement for restriction and election of species was made in connection with the above-identified patent application on May 4, 2006. Applicants affirm that, in response to that telephone requirement, a provisional election was made on May 10 to prosecute Group I, claims 1-6; accordingly, claims 7-16 are withdrawn from consideration. Applicants respectfully traverse the Restriction Requirement.

It is respectfully submitted that the subject matter of all claims is sufficiently related that a thorough search for the subject matter of any one Group of claims would encompass a search for the subject matter of the remaining claims. Thus, it is respectfully submitted that the search and examination of the entire application could be made without serious burden. *See* MPEP §803 ("if the search and examination of an entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions" (emphasis added)). It is respectfully submitted that this policy should apply in the present application in order to avoid unnecessary delay and expense to Applicants and duplicative examination by the Patent Office.

Applicants further respectfully submit that, because claims 1-6 are canceled herein, and claims 17-21, which –like claims 1-6– are directed to electrolyte membranes, are in condition for allowance for the reasons set forth below, claims 7-16 should be rejoined and

considered on the merits at this time. Thus, withdrawal of the Restriction Requirement and rejoinder of claims 7-16 are respectfully requested.

**II. Petition For Correction of Inventorship**

Applicants gratefully acknowledge the entry of the November 25, 2003, Petition for Correction of Inventorship. Applicants respectfully submit that the Application Number on the first page of the Petition and accompanying Amendment is correct and that the Application Number on the second page of these documents was inadvertently listed incorrectly. The second page of these documents should include the Application Number identified on the first page of the documents, No. 10/646,686.

**III. Information Disclosure Statement**

Applicants confirm that the June 29, 2004, Information Disclosure Statement was inadvertently filed with an erroneous serial number indicated on the IDS, and that the June 29, 2004, Information Disclosure Statement should be considered with this application.

Applicants respectfully submit that copies of references JP 2001-106831, JP 2001-123081, JP 2001-261967 and JP 2001-335695 were previously submitted to the Patent Office with the June 29, 2004, Information Disclosure Statement, as indicated by the attached copy of the Patent Office receipt. The Examiner is requested to initial and return to the undersigned a copy of the Form PTO-1449. For the convenience of the Examiner, a copy of that form and copies of these references and their Abstracts are attached.

Applicants note that WO 00/54351, which is cited in the instant specification, is in the same patent family as European Patent Application No. EP 1 202 365, which was cited in the June 29, 2004, Information Disclosure Statement, and thus the inclusion of WO 00/54351 is considered cumulative.

**IV. Drawings**

The Examiner objects to FIG. 8 as illustrating only that which is old without including a legend such as "PRIOR ART." FIG. 8 has been amended herein to comply with this requirement. Accordingly, the withdrawal of the objection to the drawings is respectfully requested.

**V. Claim Rejections**

The Examiner rejects claims 1-5 under 35 U.S.C. §102(b) over U.S. Patent No. 6,042,958 to Denton et al.; rejects claims 1-6 under 35 U.S.C. §102(b) over U.S. Patent Application Publication No. 2002/0094471 to Mercuri; and rejects claim 6 under 35 U.S.C. §103(a) over Denton in view of U.S. Patent No. 6,437,011 to Steck et al. Applicants respectfully submit that, because claims 1-6 are canceled herein, these rejections should be withdrawn.

**VI. New Claims**

By this Amendment, new claims 17-21 are added. Independent claim 17 sets forth an "electrolyte membrane which is intended for use in a fuel cell comprising: a matrix comprising a perfluorinated proton-conducting polymer and a sheet having a porosity of 10 to 90% by volume and substantially consisting of a glass cloth, wherein the glass cloth is formed by weaving a plurality of glass yarns and each of the plurality of glass yarns is formed by bundling a plurality of glass fibers, and a size of an opening of the glass cloth is between 20 and 300  $\mu\text{m}$ ." Claims 18-21 depend from and incorporate all of the limitations of claim 17.

Applicants respectfully submit that claim 17 and its dependent claims are patentable over the references cited above.

Denton teaches a porous substrate composed of individual fibers having random orientations, but does not teach or suggest a porous sheet that consists substantially of glass cloth of woven glass fibers. *See generally*, Denton.

Mercuri teaches a membrane electrode assembly that includes a porous material, such as a “glass cloth” or polymeric substrate such as porous polyolefin, with porous polytetrafluoroethylenes being preferred. *See* Mercuri, paragraph [0040]. Steck teaches that its porous substrate may be a woven or nonwoven fabric or cloth, or can be made from paper or glass. However, the Steck reference indicates that porous polymeric materials, such as porous polyolefins, porous polytetrafluoroethylene and the like, are specifically preferred, and only porous polymeric films of such materials are disclosed in the Examples. *See* Steck, col. 10, line 60 – col. 11, line 13; Examples. Further, both Mercuri and Steck teach a preferable average pore diameter of 0.1 to 1.0  $\mu\text{m}$ . *See* Mercuri, [0040]; Steck, col. 11, lines 19-20. However, this range of pore diameters does not overlap, and does not teach or suggest, the claimed range of 20 and 300  $\mu\text{m}$ .

Still further, none of the references teach or suggest an electrolyte membrane that includes a sheet having the claimed structure of a “glass cloth is formed by weaving a plurality of glass yarns and each of the plurality of glass yarns is formed by bundling a plurality of glass fibers,” and the claimed pore sizes of “between 20 and 300  $\mu\text{m}$ .”

For at least the above reasons, claims 17-21 are patentable over the references cited in the rejections of claims 1-6.

## **VII. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 7-21 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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JAO:JML/jml

Attachments:

Replacement Sheet  
June 29, 2004, Patent Office Date-Stamped Receipt  
June 29, 2004, Form PTO-1449  
JP 2001-106831 (with Abstract)  
JP 2001-123081 (with Abstract)  
JP 2001-261967 (with Abstract)  
JP 2001-335695 (with Abstract)

Date: August 30, 2006

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